

SUMMARY OF THE ACTION

Claims 1-21 of the patent application are pending. Claims 1-21 are rejected.

Drawings

The drawings are objected to by the Examiner under 37 C.F.R. 1.83(a). Corrected drawings are required that show the stripper rubber, an insert embedded in the stripper rubber, a bearing assembly and an elastic seal must be shown or the features canceled from the claims. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-21 are objected to because the following informalities:

In line 1 of claim 1, the applicant recites "A connector for optionally connecting a stripper rubber to drilling head equipment". The word "optionally" is deemed in the Office Action to be confusing. The Office Action suggests that the applicant amend the phrase to recite - - A connector for selectively connecting a stripper rubber to drilling head equipment - -. The words "optionally" or "optional" are used throughout claim 1021 and same objection applies to all the occurrences.

Claim 5 is objected to because the claim recites the limitation "the barrel" in line 2. There is insufficient antecedent basis for the limitation in the claim as the limitation had not been previously recited.

Claim 20 is objected to because of the following informalities: In claim 20, line 1, the phrase "The method of claim 1" should be changed to - - The method of claim 19 - -.

Appropriate correct is required.

Claim Rejections – 35 USC § 102

Claim 21 is rejected under 35 USC § 102(b) as being anticipated by Hoagland 1,980,336. Hoagland (US 1,980,336) is proposed, in summary, to disclose a system for connecting and disconnecting a first and second structural member, the first structural member comprising one or more cam pins and the second member comprising one or more cam pin bores and cam lock bores; and rotatable cam locks; wherein the first a second structural members are selectively connected when at least one cam lock is in an engaged position and are selectively disconnected when none of the one or more cam locks are in an engaged position.

Claim Rejections – 35 USC § 103

Claims 1 - 20 were rejected under 35 USC § 103(a) as being unpatentable over Williams (US 4,949,796) in view of Hoagland '336.

Referring to claims 1, 9, 10, and 18, Williams is proposed to disclose a system for connecting a stripper rubber to drill head equipment comprising a cylindrical adapter, the adapter having cam pin bores [sic] adapted to house cam pins [sic] and attached to a stripper rubber. Williams, however, does not disclose cam lock bores or rotatable cam locks housed in the cam lock [bores] which engage the cam pins.

Hoagland is proposed to teach a connection system having cam pin bores in one member adapted to house cam pins and cam lock bores offset from the cam pin bores so the two bores partially intersect, cam pins that attach to a second member and are

insertable into the cam bores and cam locks that housed in the cam lock bores and selectively engage the cam pins to connect two members. The Office Action asserts that it would be obvious to one of ordinary skill in the art to modify the connector disclosed by Williams to have cam lock bores or rotatable cam locks housed in the cam locks which engage the cam pins in view of the teachings of Hoagland.

Referring to claims 2 and 11, Williams is purported to disclose cam pins have a threaded end and a pin end where the cam pins threadedly attach to the stripper rubber and the pin end insert into the cam pin bore of the adapter.

Referring to claims 3 and 12, Williams is purported to disclose an insert embedded in the stripper rubber and the cam pin attaches to the insert.

Referring to claim 4 and 13, Williams is purported to disclose a bearing assembly mounted to the adapter.

Referring to claim 5 and 14, Williams is purported to disclose a seal between the adapter and the barrel or equipment.

Referring to claim 6 and 15, Hoagland is purported to teach cam lock bores substantially perpendicular to cam pin bores.

Referring to claim 7 and 16, Hoagland is purported to teach cam lock bores located obliquely to cam pin bores.

Referring to claim 8 and 17, Hoagland is purported to teach biased cam locks.

Referring to claim 19, Williams is purported to disclose a method for connecting a stripper rubber to drill head equipment comprising providing drilling head equipment; providing a stripper rubber having an insert, providing an adapter between the equipment and the stripper rubber and connected to the equipment, the adapter having cam pin

bores; providing cam pins attached to the stripper rubber insert and the pins being disposed in the cam pin bores of the adapter. Williams, however, does not disclose cam lock bores, rotatable cam locks housed in the cam lock bores which engage the cam pins; nor does Williams disclose rotating the cam locks to engage the cam pins through the aperture.

Hoagland is purported to teach a connection system having cam pin bores in one member adapted to house cam pins and cam lock bores offset from the cam pin bore so the two bores partially intersect, cam pins attach to a second member and are insertable into the cam bores and cam locks that are housed in the cam lock bores and selectively engage the cam pins to connect two members and rotating the cam locks to engage the cam pins through the aperture.

The Office Action asserts that it would be obvious to to one of ordinary skill in the art to modify the connector disclosed by Williams to have cam lock bores. Rotatable cam locks housed in the cam locks which engage the cam pins or rotating the cam locks to engage the cam pins through the aperture in view of the teachings of Hoagland.

Referring to Claim 20, Hoagland is purported to teach rotating the cam lock to disengage the cam locks from the cam pins.

REMARKS

Drawings

The drawings are objected to for failing to show every feature of the invention specified in the claims. The Action indicates that alternative manner to overcome the objection to the drawings to cancel the features from the claims. Accordingly, the

Applicant has canceled the claims and new claims are presented the do not specify any feature not present in the drawings. Applicant therefore believes that the objection to the drawings has been overcome and respectfully requests reconsideration by the Examiner and withdrawal of the objection to the drawings.

Claim Objections

Claims 1-21 are objected to for use of the term "optionally," which was deemed to be confusing. The Examiner suggests the phrase be amended to recite - - A connector for selectively connection a stripper rubber to drilling head equipment - - . Applicant has canceled claims 1-21. Newly present claims 22-27 adopt the suggestion of the examiner with respect to the amended phrase.

Claim 5 is objected to for lack of sufficient antecedent basis for the limitation "the barrel." Claim 5 has been canceled.

Claim 20 is objected to because of the informality: the phrase the "The method of claim 1" should be changed to - - the method of claim 19 - -. Claim 20 has been canceled.

Applicant therefore believes that the objection to the claims has been overcome and respectfully requests reconsideration by the Examiner and withdrawal of the objection to the claims.

Claim Amendments

Claim 21 is rejected under 35 USC 102(b) as being anticipated by Hoagland US 1,980,336 ("336"). The applicant has canceled claim 21. New independent claims 22 and 24 are presented which recite the new features of an inner adapter surface comprising a plurality of bores to house means for securing the adapter to the equipment. Support

for claims 22 and 24 may be found in Fig. 1, features 150 and 160. Features 150 and 160 are limitations that are not disclosed, taught or suggested by Hoagland '336. Accordingly, the applicant believes that basis for the claim rejection under 35 USC 102 (b) has been overcome, and respectfully requests reconsideration and withdrawal of the claim rejection.

Claims 1-20 are rejected under 35 USC 103(a) as being unpatentable over Williams US 4,949,796 ("796") in view of Hoagland '336. Claims 1-20 have been canceled.

As discussed above, new independent claims 22 and 24 are presented which recite the new features of an inner adapter surface comprising a plurality of bores to house means for securing the adapter to the equipment. Support for claim 22 may be found in Fig. 1, features 150 and 160. Features 150 and 160 are limitations that are not disclosed, taught or suggested by Hoagland '336 or Williams '796.

In particular, Williams '736 discloses features 55 and 57 disposed around an outer, not inner, circumference of assembly carrier 50. Furthermore, carrier 50 of Williams '796 is not an equivalent structure to applicant's adapter 100. The difference in form and function is made clear by the use of clamp assemblies 60 and 30 to secure carrier 50 to stripper rubbers 70 and 38, respectively in Williams '796. The present disclosure provides a structure that does away with the need for the clamp assemblies of Williams '796.

Hoagland '336 provides no motivation to disclose, teach, or suggest the features of an inner surface comprising a plurality of bores to house means for connecting the adapter to equipment because the purpose of Hoagland '336 is to provide a means for

retaining a chuck, not to adapt the connection between two pieces of equipment. That is, the features of newly presented claims 22-27 of the present disclosure serve no purpose to achieve the objectives of Hoagland '336.

New dependent claim 23 recites "The connector of claim 22, further comprising an o-ring groove along the outer diameter of the inner surface." Support for claim 23 may be found in Fig.1 of applicant's disclosure, at element 170.

New claim 24 recites the elements of the adapter of claim 22 together with one or more cam pins and one or more cam locks. Support for claim 24 may be found in Fig. 4 of applicant's disclosure, elements 200 and 300.

New dependent claim 25 recites "The connector system of claim 24, wherein the adapter further comprises an o-ring groove along the out diameter of the inner surface." Support for claim 25 may be found in Fig.1 of applicant's disclosure, at element 170.

New dependent claim 26 recites "The connector system of claim 24, further comprising one or more springs disposable in one or more of the cam lock bores to provide a spring-biased force on one or more of the cam locks." Support for claim 26 may be found in Fig.4 of applicant's disclosure, at element 410.

New dependent claim 27 recites "The connector system of claim 24, wherein one or more of the cam pins comprise a threaded end." Support for claim 27 may be found in Fig.3 of applicant's disclosure, at element 350.

Accordingly, the applicant believes that the basis for the claim rejections under 35 USC 103(a) has been overcome, and respectfully requests reconsideration and withdrawal of the claim rejections.

CONCLUSION

In view of the foregoing amendments and remarks, the applicant believes that the application is now in condition for allowance and respectfully requests reconsideration, advancement of the application to allowance and the issuance of letters patent.

If the Examiner has any questions regarding this paper, please contact the undersigned attorney.

Respectfully submitted

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the following correspondence is being transmitted by facsimile to Mail Stop AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 1, 2006 at facsimile no. 571-273-8300:

1. Patent Application Ser. No.: 10/829,675 - Response to the Non-Final Office Action dated December 6, 2005.
2. Patent Application Ser. No.: 10/829,675 - Claim Listing

By 

Printed Name: **Brad Hendrickson**

Patent Application Ser. No.: 10/776,325
Response to the Non-Final Office Action dated February 13, 2006
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